

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PLANT PATENT APPLICATION FOR

Title:

PECAN TREE "EXCEL" VARIETY

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TITLE OF THE INVENTION

PECAN TREE “EXCEL” VARIETY

FIELD OF THE INVENTION

[0001] This invention relates generally to a new and distinct variety of pecan tree.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to a new and distinct variety of pecan tree discovered growing by the inventor on his farm in Pierce County, Georgia. The instant tree is selected from seedlings of unknown parentage and will be known commercially as the “EXCEL” variety and known scientifically as *Carya illinoiensis*.

BRIEF SUMMARY OF THE INVENTION

[0003] The tree of the new “EXCEL” variety was found growing in a planted orchard on the inventor’s farm in the year of 1990. The tree was estimated to be between about 20 and 25 years old at the time of discovery. The inventor’s attention was attracted to the original tree of the new “EXCEL” variety because of its superior characteristics.

[0004] In particular, the new variety “EXCEL” pecan tree is an early bearing tree with fruit maturing and ready for harvest about the 1st week in October, which puts this new variety at about 2 weeks earlier than the standard “Stuart” variety. Surprisingly, the new “EXCEL” tree actually blooms out later than the popular “Stuart” variety yet this new variety actually produces mature nuts that ripen earlier.

[0005] The new “EXCEL” tree displays a semi-dwarf type growth with small twiglets, yet the nut has the general size and shape of the “Desirable” pecan variety. The fruit has a thick shell and an excellent quality that yields about 51%. The final bloom is red and the

catkins are long and thin. At this time the new variety is thought to be a self-pollinator.

[0006] The "EXCEL" tree has also shown to be disease resistant as well as insect resistant for the foliage. The foliage of this new variety is somewhat sparse, which allows for better sunlight penetration and air circulation. On the worst of conditions, the "EXCEL" has shown no scab on the nuts. The tree is precocious (early bearing) as well as polyfic (heavy bearing).

[0007] Trees of the new "EXCEL" variety have been asexually reproduced by grafting and budding by the inventor at his farm in Pierce County Georgia. Asexual reproduction has shown that the foregoing characteristics and distinctions survive and are established and transmitted through successive propagations as witnessed by University of Georgia Plant Pathologist, Dr. Patrick Conner, of Athens, Georgia.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

[0008] The photographs show various aspects of the new "EXCEL" variety while being grown at Pierce County near Blackshear, Georgia, wherein the color is illustrated as true as is reasonably possible in a depiction of this character.

[0009] FIG. 1 shows the generally upright and spreading sturdy growth habit of the original tree of the new "EXCEL" variety when observed during 2001.

[00010] FIG. 2 shows typical foliage and nuts of the new "EXCEL" variety during spring, summer and fall of 2002.

[00011] FIG. 3 illustrates typical nuts in the shell of the new "EXCEL" variety following removal from the husks.

[00012] FIG. 4 illustrates typical nuts of the new "Excel" variety showing the kernels following removal from the shell.

[00013] FIG. 5 illustrates typical foliage, buds and catkins of the new "EXCEL" variety

when the tree is in bloom.

[00014] FIG. 6 is a close up picture illustrating the typical bloom of the new "EXCEL" variety.

[00015] FIG. 7 illustrates the open tube growth of the branches of the new "EXCEL" variety taken during the winter, while the tree is dormant.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[00016] Having summarized various aspects of the present invention, reference will now be made in detail to the description of the invention as illustrated in the accompanying photographs.

[00017] The tree:

Tree configuration. Sparse, open tube growth showing small leaves and twig bits or semi dwarf and conducive to closer planting, displays a semi-dwarf type growth with small twiglets, foliage is somewhat sparse, which allows for better sunlight penetration and air circulation
Tree has good strong branch junctions.

Foliage. Foliage displays somewhat small leaflets which are of medium green color.

Productivity. Bearing age approximately 3 years, good regular bearer of quality nuts; trees have been shown to bear at 3 years after transplanting and shown increased heavy production, thereafter.

Buds. Buds are spaced somewhat far apart on twiglets, long & pointed

Catskins. The final bloom is red and the catskins are long and thin
Female bloom is red, catskins are somewhat light in color.

Hardiness. Tree blooms late and matures early leaving it less susceptible
to frost damage.

*Resistance to
Disease and
Insects.* Nuts have shown high resistance to scab
and other disease; foliage has shown heavy resistance to
disease as well as good resistance to insects.

[00018] The nuts:

Ripening. Early bearing tree with fruit ready to shake about the 1st week
in October, which puts it about 2 weeks earlier than the standard
Stuart variety. The tree actually blooms out later than Stuart
but matures earlier. Schuck split begins around September 20th
and nuts open uniformly in a matter of a few days.

Maturity. Nuts are ready to shake the 1st week in October.

Quantity. Nut count is about 45 per pound .

Cluster size. Generally 3 to 5.

Configuration. Nuts are in a tight cluster and shaped similar to a desirable
variety.

Shell. Thick showing good bird resistance and adaptable to machine
harvest.

Kernel. Excellent, bright meat, heavy oil content, yields about 51%
with very consistent quality.

Weight. Some 7 year old trees have produced 50 pound or more.
Size. 45 cmt. Nuts are larger and consistent with the general size and
appearance of desirable variety.

DNA has been run on the "EXCEL" variety and it was shown to be both unique and dissimilar to any other known variety. Limbs grow in an upright position but to be willowy when heavily laden with nuts which tends to reduce excessive limb breakage. Because of the nut size and thickness of the shell the nut is bird resistant. This tree has been grafted and reproduced extensively on the farm of origin and the offspring has shown to be very consistent to the parent tree.

Because of its large size attractive shape, high quality meat kernel and early maturity, the new "EXCEL" variety should be an excellent choice for the in shell market as well as a good selection for commercial sellers.